

REMARKS

Claims 6-30 were pending at last examination. Claims 6, 8, 10, 18, and 21-24 have been amended. Claims 31 and 32 have been added. No claims were canceled.

Rejections under 35 USC §103(a)

Applicant's claims 6-30 have been rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,061,349 issued to Coile et al. in view of Cisco et al ("Cisco Radius"). Coile qualifies as prior art only under 35 U.S.C. §102(e) because it issued after Applicant's effective filing date. Applicant does not admit Coile is prior art and reserves the right to swear behind the reference at a later date.

Coile discloses using virtual machines to distribute web requests among a number of physical machines (Coile, Abstract). A local director intercepts the web requests for different web sites (Coile, Col. 5, lines 40-50). The local director translates and directs these requests with one or more virtual machines to a local web server that actually handles the web request for the specific web site (Coile, Col. 5, lines 40-50). The local director handles the different web requests with the virtual machine associated with each web site (Coile, Col. 5, lines 28-40). Coile defines a virtual machine as a machine corresponding to a destination IP address where no physical machine actually exists (Coile, Col. 5, lines 28-40). However, because the local director only translates and directs web requests to local web servers, a router is still required (Coile, Figure 3, router 304).

Cisco Radius discloses configuring a router to transmit all outgoing RADIUS commands through a specific router interface (Cisco Radius, p.1). Nevertheless, Cisco Radius does not teach or suggest a virtual router or bridge.

Applicant respectfully submits that the combination of Coiles' virtual machine and Cisco Radius' RADIUS transmittal interface does not teach or suggest Applicant's independent claims. The combination would have a virtual machine that translates and directs web request to a local web server while forcing RADIUS commands to be transmitted out a particular interface. However, the combination does not teach or suggest a virtual router or a virtual bridge as claimed.

In contrast, Applicant's independent claims 6, 8, 10, 18, 24, and 29 are directed to virtual routers. For example, in claims 6 and 8 as amended, Applicant claims "at least one virtual router in the memory, said at least one first virtual router including a first network interface; a first sub-interface data structure in the memory; and a first binding data structure in the memory which binds the first network interface to the first sub-interface data structure."

As another example, in claim 10 as amended, Applicant claims "providing a network device including an electronic memory encoded with at least one virtual router which includes at least one network interface; providing at least one sub-interface data structure encoded in the electronic memory; and binding the at least one network interface to the at least one sub-interface data structure."

Furthermore, claims 18 as amended requires "providing a network device including an electronic memory encoded with a first virtual router which includes at least

one first network interface and with a second virtual router which includes at least one second network interface; providing at least one first sub-interface data structure encoded in the electronic memory; providing at least one second sub-interface data structure encoded in the electronic memory; binding the at least one first network interface to the at least one first sub-interface data structure; and binding the at least one second network interface to the at least one second sub-interface data structure.”

As another example, claim 24 and 29, as amended, require “providing a network device including an electronic memory encoded with multiple respective virtual routers, said respective virtual routers including respective corresponding network databases which include respective control information, said respective virtual routers respectively each including at least one respective network interface for a respective network domain ...”.

The above quoted limitations are not described or suggested by the combination. While there are various uses for the invention as claimed, several such uses are discussed at p. 19, line 9 – p.23, line 28. Thus, while the invention is not limited to the uses discussed in these pages, it should be understood that the combination of Coile and Cisco Radius does not enable these uses and the above quoted limitations do.

For at least these reasons, Applicant respectfully submits that the independent claims are allowable. The Applicant respectfully submits that the dependant claims are allowable for at least the reason that they are dependent on an allowable independent claim.

New Claims

New claims 31-42 have been added. Applicant respectfully submits that the new claims are in condition for allowance. As stated above, the combination does not teach or suggest a virtual router or bridge as claimed. In contrast, new independent claim 31 requires “at least one virtual bridge in the memory, said at least one first virtual bridge including a first network interface; a first sub-interface data structure in the memory; and a first binding data structure in the memory which binds the first network interface to the first sub-interface data structure.”

Furthermore, claim 33, 35, and 37 requires “instantiate a first virtual router comprising a network interface and a first database, to instantiate a second virtual router comprising a network interface and a second database ...”.

In addition, claim 39 requires “instantiate a plurality of virtual network machines each comprising a network interface, wherein the plurality of virtual network machines are virtually independent but share a set of physical resources within the single network device and each of the plurality of virtual network machines is one of a virtual router and a virtual bridge ...”.

The above quoted limitations are not described or suggested by the combination. While there are various uses for the invention as claimed, several such uses are discussed at p. 19, lines 10-25, p. 20, lines 15–25, and p. 23, lines 1-28. Thus, while the invention is not limited to the uses discussed in these pages, it should be understood that the combination of Coile and Cisco Radius does not enable these uses and the above quoted limitations do. Furthermore, claim 32 is allowable because it depends from claim 31.

SUMMARY

Reconsideration of this application is respectfully requested. Claims 6-30 remain in the application. Claims 31 and 32 have been added. No claims have been amended. No claims have been canceled.

Invitation for a telephone interview

The Examiner is invited to call the undersigned at 408-720-8300 (Pacific Time) if there remains any issue with allowance of this case.

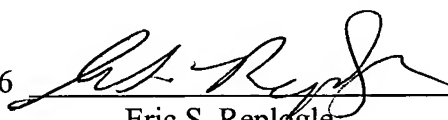
Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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